IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of: REQUEST FOR EXPEDITED CERTIFICATE OF CORRECTION FOR PTO Christopher Malyszewicz MISTAKE Patent No. 7,915,216 (37 C.F.R. § 1.322(a)) Issue Date: March 29, 2011 It is hereby certified that this correspondence is Serial No.: 10/556,481 being transmitted to the United States Patent and Trademark Office via the USPTO electronic filing system no later than 11:59 PM local time Filed: November 14, 2005 on June /5, 2011. Confirmation No.: 1232 Atty. File No.: 077747-010100

Attention: Certificate of Correction Branch

For: "ANTI-VIRAL AND ANTI-BACTERIAL CLEANING COMPOSITION"

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

This is a request for an Expedited Certificate of Correction for mistakes solely incurred through the fault of the United States Patent and Trademark Office, which mistake is clearly disclosed in the records of the Office (37 C.F.R. § 1.322(a)). In particular, a second foreign priority claim, PCT/GB03/03296, filed July 30, 2003, was omitted in section (30) of the bibliographic data; and the phrase "according to claim 35" was inserted in the wrong place in claim 7 (prosecution claim 66). Documentation that unequivocally supports the patentee's assertion is attached hereto.

The cover page of the International Application, containing both foreign priority claims, and a copy of the Declaration filed at the time of national phase entry in the United States also containing both priority claims, are attached as Appendix A.

In the Examiner's Amendment received with the Notice of Allowance, the Examiner wrote, "At line 3 of claim 66, insert ---according to claim 35--- after "composition". Line 3 of claim 66 (issued claim 7) contained two occurrences of the word "composition". The phrase --- according to claim 35--- should have been inserted after the first occurrence of the word "composition," but was inserted after the second occurrence of the word "composition". As instructed by the Examiner in the Examiner's Amendment the phrase --- according to claim 35-- (claim 35 is issued claim 1) was correctly inserted in prosecution claim 64 (issued claim 6), after the first occurrence of the word "composition" in the sentence at line 3 of claim 64. Enclosed are the Examiner's Amendment accompanying the Notice of Allowance, mailed January 7, 2011 (Appendix B), the Amendment filed December 9, 2010, showing the final listing of the claims by the Applicant (Appendix C), and column 8 of the issued patent containing claim 6 (prosecution claim 64) and claim 7 (prosecution claim 66) (Appendix D).

Issued claim 7 (prosecution claim 66) should be corrected as follows:

7. A means of inhibiting the ability of bacteria and/or viruses to replicate when said bacteria and/or viruses are present on a surface, the means comprising the application of a composition according to claim 1 to said surface wherein the composition according to claim 1 is configured to substantially permanently encapsulate the bacteria or virus and prevent the replication of their genetic material, wherein the solution of claim 1 is provided.

Applicants therefore respectfully request that the above-identified patent be expeditiously corrected as provided above. A completed Certificate of Correction form (PTO/SB/44) is included as Appendix E.

It is not believed that any fees are due in connection with this correspondence. However, any necessary fees may be charged to Deposit Account No. 50-2775.

Respectfully Submitted.

Dated: June 15,2011

By: Daniella K Morrow Rea

Danielle K. Morrow, Reg. No. 65,582 GREENBERG TRAURIG LLP 1200 17th Street, Suite 2400 Denver, CO 80202

Tel: (303) 572-6500 Fax: (303) 572-6540

APPENDIX A

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 25 November 2004 (25,11,2004)

English

(10) International Publication Number WO 2004/101726 A2

- (51) International Patent Classification7: C11D 3/00, 1/40, 3/20, 3/02, A61L 2/18, A01N 31/02, 31/04, 59/12, 59/00
- (21) International Application Number: PCT/GB2004/002148
- (22) International Filing Date: 17 May 2004 (17.05.2004)
- (25) Filing Language: English
- (30) Priority Data:
- 0311174.7 15 May 2003 (15.05.2003) GB PCT/GB03/03296 30 July 2003 (30.07.2003) GB
- (71) Applicant (for all designated States except US): GREEN-BRIDGE ENVIRONMENTAL CONTROL LIMITED [GB/GB]; Saint Bartholomews, Lewins Mead, Bristol, BS1 2NH (GB).
- (72) Inventor; and

(26) Publication Language:

- (75) Inventor/Applicant (for US only): MALYSZEWICZ, Christopher [GB/GB]; 12 Waggoners Way, Bugbrooke, Northampton, Northamptonshire NN7 3QT (GB).
- (74) Agents: CARLIN, Robert, George et al.; Olswang, 90 High Holborn, London, WC1V 6XX (GB).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW. ML, MR, NE, SN, TD, TG).

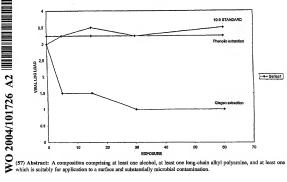
Declarations under Rule 4.17:

as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,

[Continued on next page]

(54) Title: ANTI-VIRAL AND ANTI-BACTERIAL CLEANING COMPOSITION

D-STRY POLIO RNA



(57) Abstract: A composition comprising at least one alcohol, at least one long-chain alkyl polyamine, and at least one halogen

But No. VIII (b) DECLARATION: INVENTORSHIP (only far the purposes of the designation of the United States of Associates). The deviationals waster response to the designation of the United States of Associates waster response to the definite considerable of the designation of the United States of Associated States of the United States of Associated States of the United States of Associated States of the United States of the Un Declaration of inventorship (Ruirs 4.17(iv) and \$156.1(a)(iv)) for the purposes of the designation of the United States of America I bereity declare that I bullere I my the original. Are and solo if noly one investor is listed below; or july I if more than one investor is listed below) inventor of the subject matter which is alclined and for which a passes is enough. This decimation is directed in the international application of which is forms a part of filling declaration with application). I hereby declare that my resistence, stalling address, and chiexachip are as stated data to my name. blanchy includes the my sectiones, cutting unbeast, and cilculated par up a month entail to my turns. Buildings and the blanchy may be the bury created and of months of the bury country of the bury country of the bury country of the bury country of a country of the bury country of a country of the bury country of a country of the bury country of the bury country of the bury country or the bury of the bury of the bury country of the bury of the bu I harrby ustimatedage the daty to allected unformation that is treen by one to be material to potentiability as defeated by 2C.C.R. I. 1.56, Including for evaplousion-in-part applications, material in thermalia which because a validate between the filling date of the prior application and the PCT benefational life in the continuation-depart application. to the prior approximation in C.C. were minimum time, who are not commonliation-report approximation. Thereby declars that all authorises made benefit of my own incordings are typical that all theorement reade on in formation and helded are believed to two treat all further that those attenues were made with the homerdage that willfull false materians and the like as the believed to two treat all further that those attenues and the like as that the proposal to the contribution of t Nume: Malyazawicz, Christophar Residence: Northamplor, Northamplonshire
Lithy and other US sune, I reptileable, or equantly) Mailing Address: . 12. Waggoners, Way, Rugbrooks, Northampton, Northamptonshire, NN7 3QT, United . Name: ./... Date: Inf signature which is not contained in th declaration that is corrected or stided under filing of the international applications This declaration is continued on the following sheet, "Continuation of Box No. VIII (IVI". See Notes to the request for From PCT/RO((0) tdeclaration sheet (ivi) (January 2004)

APPENDIX B

01/07/2011

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS Extended to Margina 22313-1450 www.usided.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

neno

Richard E Kurtz II Greenberg Traurig Suite 1200 1750 Tysons Boulevard McLean, VA 22102 EXAMINER HARDEE, JOHN R

ART UNIT PAPER NUMBER

DATE MAILED: 01/07/2011

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFIRMATION NO.

 10/556/481
 11/14/2005
 Christopher Malyszewicz
 76241/010900
 1232

TITLE OF INVENTION: ANTI-VIRAL AND ANTI-BACTERIAL CLEANING COMPOSITION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	80	\$1055	04/07/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHT. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPFF 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fec(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Foe(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEB and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmital should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filled, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the namer as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mall Mall Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 ministration.

			or <u>Fax</u> (57	1)-273-2885	mia 2.	2313-1430	
INSTRUCTIONS: This appropriate. All further indicated unless corrects maintenance for notifica	form should be used it correspondence includit ed below or directed other	or transmitting the ISSU ing the Patent, advance or nerwise in Block 1, by (a					hould be completed when correspondence address a arate "FEE ADDRESS" fo
CURRENT CORRESPONDENCE ADDRESS (Nove: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
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McLean, VA 22	102						(Supramero)
							(Dake)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	KNEY DOCKET NO.	CONFIRMATION NO.
10/556,481	11/14/2005		Christopher Malyszewicz	:		76241.010500	1232
		,	,	т		TOTAL FEE(S) DUE	DATE DUE
APPLN. TYPE	SMALL ENTITY	ISSUE PEE DUE	PUBLICATION FEE DUE	J	E FEE		
nonprovisional	YES	\$755	\$300	\$0		\$1055	04/07/2011
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	J			
HARDEE	, JOHN R	1761	510-499000				
1. Change of correspond	ence address or indication	n of "Fee Address" (37	2. For printing on the	patent front page, l	st	1	AND THE PERSON NAMED IN COLUMN 2 IN COLUMN
Change of corresp Address form PTO/S	CFR 1.563). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.			(1) the names of us to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of us to 2 registered patent attorneys or agents. If no name is 3			
"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47: Rev 03-02 or more recent) attached. Use of a Customer Number is required.			registered attorney or agent) and the issines of the to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.				
3. ASSIGNEE NAME A	ND RESIDENCE DAT	A TO BE PRINTED ON	THE PATENT (print or t)	rpe)			
PLEASE NOTE: Un recordation as set for	less an assignee is iden th in 37 CFR 3.11. Com	tified below, no assigned pletion of this form is NC	data will appear on the p Of a substitute for filing ar	patent. If an assign assignment.	nec is to	dentified below, the	document has been filed to
(A) NAME OF ASSI			(B) RESIDENCE: (CIT	Y and STATE OR	COUNT	TRY)	
Please check the appropr	riate assignee category o	r categories (will not be p	rinted on the parent) :	Individual 🗆 C	orporat	ion or other private gr	roup entity Governmen
4a. The following foc(s)	are submitted:	4	b. Payment of Fee(s): (Ple	ase first reapply a	ny pre	viously paid issue fee	shown above)
lssue l'ee			A check is enclosed.				
Publication Fee (No small entity discount permitted) Advance Order - # of Copies			Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form				
Advance Order -	# of Copies		overpayment, to Dep	osit Account Numb	xer	(enclose	an extra copy of this form).
5. Change in Entity Sta			O	11.1-1011	m	2272/ Can 27 (TER 1.27(a)(2)
☐ a. Applicant elain	ns SMALL ENTITY star	us. See 37 CFR 1.27.	b. Applicant is no lo	the applicant: a rec	ictered	attorney or agent; or	the assignee or other party i
interest as shown by the	records of the United St	ates Patent and Trademar	k Office.	ше принсин, и гер			the assignee or other party i
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Box 1450, Alexandria, Virginia 2 Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 223 12-1450

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,481	11/14/2005	Christopher Malyszewicz	76241.010500	1232
759	0 01/07/2011		EXAM	INER
Richard E Kurtz I			HARDEE	JOHN R
Greenberg Traurig	•		ART UNIT	PAPER NUMBER
Suite 1200 1750 Tysons Bouler McLean, VA 22102			1761 DATE MAILED: 01/07/201	1

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

if a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)
	10/556,481	MALYSZEWICZ, CHRISTOPHER
Notice of Allowability	Examiner	Art Unit
	JOHN R. HARDEE	1761
The MAILING DATE of this communication ap All claims being allowable. PROSECUTION ON THE MERITS nerewith (or previously mailed), a Notice of Allowance (PTOL- NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT of the Office or upon petition by the applicant. See 37 CFR 1.3	IS (OR REMAINS) CLOSED in 35) or other appropriate commu RIGHTS. This application is s	this application. If not included unication will be mailed in due course, THIS
. It is communication is responsive to applicant's RCE ar	nd IDS, and the attached exam	iner's amendment.
. Mail The allowed claim(s) is/are 35.40.41.54.55.64.66 and 7.	3-80.	
 Acknowledgment is made of a claim for foreign priority a) All b) Some* c) None of the: 	under 35 U.S.C. § 119(a)-(d)	or (f).
 Certified copies of the priority documents have 		
Certified copies of the priority documents have		
Copies of the certified copies of the priority	documents have been receive	d in this national stage application from the
International Bureau (PCT Rule 17.2(a)).		
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DAT noted below. Fallure to timely comply will result in ABANDO THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	E" of this communication to file NMENT of this application.	a reply complying with the requirements
 A SUBSTITUTE OATH OR DECLARATION must be su INFORMAL PATENT APPLICATION (PTO-152) which is 	bmitted. Note the attached EX- gives reason(s) why the cath o	AMINER'S AMENDMENT or NOTICE OF r declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") r	nust be submitted.	
(a) including changes required by the Notice of Draftsp	erson's Patent Drawing Revie	w (PTO-948) attached
1) hereto or 2) to Paper No./Mail Date		
(b) including changes required by the attached Examin Paper No./Mail Date	er's Amendment / Comment o	r in the Office action of
identifying indicts such as the application number (see 37 CF each sheet. Replacement sheet(s) should be labeled as such	R 1.84(c)) should be written on t in the header according to 37 C	the drawings in the front (not the back) of FR 1.121(d).
 DEPOSIT OF and/or INFORMATION about the de attached Examiner's comment regarding REQUIREMENT 	PPOSIT OF BIOLOGICAL MAT NT FOR THE DEPOSIT OF BI	ERIAL must be submitted. Note the OLOGICAL MATERIAL.
Attachment(s) 1. □ Notice of References Cited (PTO-892)	5. Notice of I	nformal Patent Application
2. Notice of Draftperson's Patent Drawing Review (PTO-94	8) 6. Interview S	Summary (PTO-413),
	Paper No.	/Mail Date
 Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 12032010; 01042001 		Amendment/Comment
 Examiner's Comment Regarding Requirement for Deposit 	sit 8. 🗌 Examiner's	Statement of Reasons for Allowance
of Biological Material	9. Other	_
/John R. Hardee/		
Primary Examiner, Art Unit 1761		
	I	

	Application No.	Applicant(s)			
Examiner-Initiated Interview Summary	10/556,481	MALYSZEWICZ, CHRISTOPHER			
	Examiner	Art Unit			
	JOHN R. HARDEE	1761			
All Participants:	Status of Application:	 .			
(1) JOHN R. HARDEE.	(3)				
(2) Mr. Heath Briggs.	(4)				
Date of Interview: 28 December 2010	Time:				
Type of Interview: Telephonic Title Conference Personal (Copy given to: Applicant Applicant's representative) Exhibit Shown or Demonstrated: No If Yes, provide a brief description:					
Rejection(s) discussed:					
Claims discussed:					
Prior art documents discussed:					
Part II.					
SUBSTANCE OF INTERVIEW DESCRIBING THE GENI		S DISCUSSED:			
Discussed language which would put claims in condition for all	owance.				
Part III.					
 It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability. It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above. 					
/John R. Hardee/ Primary Examiner, Art Unit 1761	'Applicant/Applicant's Representa	utive Signature – if appropriate)			

Application/Control Number: 10/556,481

Art Unit: 1761

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes
and/or additions be unacceptable to applicant, an amendment may be filed as provided
by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be
submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Heath Briggs on December 28, 2010.

The application has been amended as follows:

At line 3 of claim 64, insert --- according to claim 35--- after "composition".

At the end of claim 64, delete [, wherein the solution of claim 35 is provided].

At line 3 of claim 66, insert ---according to claim 35--- after "composition".

At the end of claim 66, delete [, wherein the solution of claim 35 is provided].

Allowable Subject Matter

- 2. Claims 35, 40, 41, 54, 55, 64, 66 and 73-80 are allowed.
- 3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, Dr. John R. Hardee, whose telephone number is (571) 272-1318. The examiner can normally be reached on Monday through Friday from 8:00 until 4:30. In the event that the examiner is not available, his supervisor, Mr. Harold Pyon, may be reached at (571) 272-1498.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8100.

Application/Control Number: 10/556,481
Art Unit: 1761

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

> /John R. Hardee/ Primary Examiner December 28, 2010

APPENDIX C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Docket No.: 76241.010500
MALYSZEWICZ, Christopher, et al.	Confirmation No.: 1232
Serial No.: 10/556,481	Art Unit: 1796
Filing Date: November 14, 2005	Examiner: HARDEE, John R.
Title: ANTI-VIRAL AND ANTI-BACT	TERIAL CLEANING COMPOSITION

It is hereby certified that this correspondence is being transmitted to the United States Patent and Trademark Office via the USPTO electronic filing system no later than 11:59 PM local time on December 9, 2010.

Signed:

Name:

Marilyn Morris

AMENDMENT AND RESPONSE TO OFFICE ACTION AND RESPONSE TO NON-COMPLIANT AMENDMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

This communication is responsive to the Notice of Appeal filed May 5, 2010, and the Notice of Non-Compliant Amendment having a mailing date of December 6, 2010.

Amendments to the Claims are reflected in the Listing of Claims, which begins on page 2 of this paper.

Remarks/Arguments begin on page 5 of this paper.

A five-month extension of time was requested and an RCE filed in a Response filed on December 6, 2010. Therefore, it is not believed that any additional fees are due in connection with this response. However, any necessary additional fees may be charged to Deposit Account No. 50-2775.

AMENDMENTS TO THE CLAIMS

Please replace all prior versions, and listings, of claims with the following claims:

- 1-34 (Cancelled)
- 35. (Currently Amended) A cleaning solution consisting essentially of comprising:
 - (a) at least one long chain alkyl polyamine of the formula:

H₂N(CH₂)₃-NR-(CH₂)₃NH₂

wherein R is a linear or branched alkyl amine chain comprising 10 to 14 carbon atoms:

- (b) at least one aliphatic alcohol;
- (c) iodine:
- (d) at least one amphoteric surfactant; and
- (e) at least one antioxidant;

wherein the solution is non-dangerous in accordance with European Dangerous Preparations Directive (99/45/EC) and Dangerous Substances Directive (67/548/EEC).

- 36-39 (Cancelled)
- (Previously Presented) A solution according to claim 35, wherein R is a linear alkyl chain.
- (Previously Presented) A solution according to claim 40, wherein R comprises at least twelve carbon atoms.
- 42-53 (Cancelled)
- 54. (Previously Presented) A solution according to claim 35, wherein the solution further comprises a complexing agent adapted to form a complex with the iodine.
- (Previously Presented) A solution according to claim 35, wherein the solution further comprises at least one buffering agent.

56-63 (Cancelled)

- 64. (Previously Presented) A means of destroying bacteria and/or inhibiting the ability of bacteria and/or viruses to replicate when said bacteria and/or viruses are present on a surface, the means comprising the application of a composition to said surface wherein the composition is configured to rupture the phospholipid membrane of the bacteria or virus, the composition being further configured to cleave bacterial DNA and/or substantially permanently bind to bacterial DNA and viral DNA or RNA, wherein the solution of claim 35 is provided.
- 65. (Cancelled)
- 66. (Previously Presented) A means of inhibiting the ability of bacteria and/or viruses to replicate when said bacteria and/or viruses are present on a surface, the means comprising the application of a composition to said surface wherein the composition is configured to substantially permanently encapsulate the bacteria or virus and prevent the replication of their genetic material, wherein the solution of claim 35 is provided.
- 67-72 (Cancelled)
- (Previously Presented) The solution of claim 35, wherein R = C₁₂.
- 74. (Previously Presented) The solution of claim 73, wherein the at least one aliphatic alcohol is selected from the group consisting of ethanol and n-propanol.
- 75. (Previously Presented) The solution of claim 74, wherein the solution contains 10 30 vol. % of the at least one aliphatic alcohol.
- 76. (Previously Presented) The solution of claim 75, wherein solution includes up to about 0.5 wt. % iodine.
- (Previously Presented) The solution of claim 76, wherein the solution further includes at least one wetting agent.

- 78. (Previously Presented) The solution of claim 77, wherein the at least one the wetting agent is selected from the group consisting of polyglycol ether, a polyethylene glycol ether, and a polypropylene glycol ether.
- 79. (Previously Presented) The solution of claim 76, further containing at least one of:
- (i) a complexing agent, wherein the complexing agent is adapted to form a complex with the iodine, and;
 - (ii) a buffering agent.
- 80. (Previously Presented) The solution of claim 78, further containing at least one of:
- (i) a complexing agent, wherein the complexing agent is adapted to form a complex with the iodine, and;
 - (ii) a buffering agent.

REMARKS

Prior to the instant response, claims 35, 40-41, 54-55, 64, 66, and 73-80 were pending in the application. By amendment herein, claim 35 has been amended. No claims have been added or cancelled. Thus, claims 35, 40-41, 54-55, 64, 66, and 73-80 remain pending.

I. Claim Rejections Under 35 U.S.C. 103

In the Office Action of November 6, 2009, the Examiner rejected the pending claims as being unpatentable over Eggensperger et al., i.e., U.S. Patent No. 5,276,047 ("D1"), in view of Ofusu-Asante et al., i.e., U.S. Patent No. 6,387,856 ("D2"). For the reasons below, the claims exclude the presence of BIT, and thus are patentable over D1.

Independent claim 35 has been amended to recite that "the solution is non-dangerous in accordance with European Dangerous Preparations Directive (99/45/EC) and Dangerous Substances Directive (67/548/EEC)." Support for this amendment may be found at PARA. 0030 of the published application.

As previously shown, the central focus of D1 is the use of BIT. See, pages 8-9 of the October 2, 2009, Amendment and Response. Since BIT is listed as <u>dangerous</u> per the EU regulations, one of ordinary skill in the art would not have used the solution of D1 as a basis for creating the presently claimed <u>non-dangerous</u> cleaning solution.

As shown in Appendix A, page 6, under the claimed EU regulations, the chemical compound BIT (i.e., 1,2,-benzisothiazolin-3-one; CAS No. 2634-33-5) has been categorized as "Pangerous for the environment" (emphasis added). The "EC Safety Classification" for BIT is: "\$24, \$26, \$37/\$39, \$61". Per pages 8-10 of Appendix A, these safety codes are defined as:

- · S24 Avoid contact with skin
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- S37/S39 Wear suitable protective clothing and eye/face protection
- S61 Avoid release to the environment. Refer to special instructions /Safety data sheets

As shown on page 6 of Appendix A, BIT is also potentially a problem for "Reproduction / development effects", and is listed as "harmful" and as an "irritant".

Based on the "danger" to the environment, the "harmful" or "irritant" affect to humans, and the potential "[r]eproduction / development effects" of BIT, one of ordinary skill in the art would not consider the BIT-containing solution of D1 an acceptable starting point for making a "non-dangerous" cleaning solution, as presently claimed. Therefore, the pending claims are patentable over D1.

IV. Conclusion

Having responded to all rejections set forth in the outstanding Office Action, it is submitted that all pending claims are in condition for allowance, and notice to that effect is respectfully solicited.

Respectfully submitted,

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Date: December 9, 2010

APPENDIX D

copies respectively-(reductions of 95%, 95%, 99%, 99%), compared to 1000, 1000, 1000, 1000 copies/ml respectively in water control samples. The experiment was repeated with composition/virus incubations of 5, 15, 30 and 60 minutes, as previously stated, but RNA extraction performed with a phe- 5 nol/chloroform procedure (once with phenol, once with 1:1 phenol and chloroform, and once with chloroform rather than by the QIAGEN extraction method), RNA detection will be detected at 1000, 1000, 1000, and 1000 copies respectively (no reduction in RNA load).

The experiments demonstrate that the composition does not degrade RNA over the periods of 1-60 minutes, but that an interaction occurs between the composition and poliovirus/ poliovirus RNA. This interaction inhibits protease action (active in the QIAGEN process) to cleave composition peptides 15 that would normally release RNA, or alters naked RNA ionically, so that RNA cannot then be further captured and amplified in the test. The result is a low recovery of RNA, and will appear as a low copy number in the assay. The effect of the composition-virus interaction is removed during the chemi- 20 cal extraction with phenol. It can be concluded that the composition is not destructive to viral capsids, but inhibits enzymatic cleavage of the capsid, and requires further stringent chemical extraction to achieve release of the nucleic acid. The QIAGEN effect illustrated here is a consistent effect and has 25 been replicated for other RNA and DNA viruses including Adenovirus, BK virus and Norovirus, and appears to be a plausible mechanism of virucidal activity, whereby the altered viral structure is resistance to physiological and enzymatic attack

It can therefore finally concluded that both viral DNA and viral RNA is not degraded by treatment with the composition. However, the composition interacts with the viral capsid and prevents enzymatic cleavage. Although the process of virus uncoating involves different mechanisms for different virus 35 lication of their genetic material. groups, they all require the viral capsid to have structural and ionic integrity and be susceptible to cellular physiological processes that allow it to pass into and through the host cell, and interact with cellular structures and enzyme systems. The changes induced by the composition on viral structures are 40 likely to prevent this process and account for its virucidal activity.

It is hypothesised that compositions with higher levels of halogen may be useful in some applications, although alterations to the other components, such as raised amounts of 45 alcohol(s), may then be needed for stability.

The composition also has a degree of activity against fungi. moulds and yeasts, although it is believed that a modified formulation, for example with an alternative alcohol blend, might be required for full effectiveness against the tougher 50 walls of fungal spore cells and the like.

Testing has shown that the composition passes the standard "555-challenge" test (see British Standard BS EN 1276:1997 and the French Afnor test). As an effective anti-viral and anti-bacterial cleansing agent, it may be categorised as a (2) 55 category disinfectant in the system employed by the UK National Health Service, suitable for cleaning in "medium high risk" areas.

The invention claimed is:

1. A cleaning solution comprising:

(a) at least one long chain alkyl polyamine of the formula:

H2N(CH2)4-NR-(CH2)4NH2

wherein R is a linear or branched alkyl amine chain comprising 10 to 14 carbon atoms;

(b) at least one aliphatic alcohol;

(c) iodine:

(d) at least one amphoteric surfactant; and

(e) at least one antioxidant;

wherein the solution is non-dangerous in accordance with European Dangerous Preparations Directive (99/45/EC) and Dangerous Substances Directive (67/548/EEC). 2. A solution according to claim 1, wherein R is a linear

alkyl chain. 3. A solution according to claim 2, wherein R comprises at least twelve carbon atoms.

4. A solution according to claim 1, wherein the solution further comprises a complexing agent adapted to form a complex with the iodine.

5. A solution according to claim 1, wherein the solution further comprises at least one buffering agent.

6. A means of destroying bacteria and/or inhibiting the ability of bacteria and/or viruses to replicate when said bacteria and/or viruses are present on a surface, the means comprising the application of a composition according to claim 1 to said surface wherein the composition is configured to rup-

ture the phospholipid membrane of the bacteria or virus, the composition being further configured to cleave bacterial DNA and/or substantially permanently bind to bacterial DNA and viral DNA or RNA

7. A means of inhibiting the ability of bacteria and/or 30 viruses to replicate when said bacteria and/or viruses are present on a surface, the means comprising the application of

a composition to said surface wherein the composition according to claim 1 is configured to substantially permanently encapsulate the bacteria or virus and prevent the rep-

8. The solution of claim 1, wherein R=C12.

9. The solution of claim 8, wherein the at least one aliphatic alcohol is selected from the group consisting of ethanol and n-propanol.

10. The solution of claim 9, wherein the solution contains 10-30 vol. % of the at least one aliphatic alcohol. 11. The solution of claim 10, wherein solution includes up

to about 0.5 wt. % iodine.

12. The solution of claim 11, wherein the solution further includes at least one wetting agent, 13. The solution of claim 12, wherein the at least one the

wetting agent is selected from the group consisting of polyglycol ether, a polyethylene glycol ether, and a polypropylene glycol ether. 14. The solution of claim 13, further containing at least one

of: (i) a complexing agent, wherein the complexing agent is

adapted to form a complex with the iodine, and; (ii) a buffering agent.

15. The solution of claim 11, further containing at least one (i) a complexing agent, wherein the complexing agent is

adapted to form a complex with the iodine, and: (ii) a buffering agent.

APPENDIX E

Page _1_ of _1_

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

APPLICATION NO.:		10/556,481
ISSUE DATE	:	March 29, 2011
INVENTOR(S)	:	Christopher Malyszewicz

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Section (30) Foreign Application Priority Data, in the bibliographic data of the issued patent: insert --July 30, 2003 (GB) PCT/GB03/03296--

Replace claim 7 with the following claim:

: 7.915.216

PATENT NO.

-7. A means of inhibiting the ability of bacteria and/or viruses to replicate when said bacteria and/or viruses are present on a surface, the means comprising the application of a composition according to claim 1 to said surface wherein the composition is configured to substantially permanently encapsulate the bacteria or virus and prevent the replication of their genetic material, wherein the solution of claim 1 is provided.--

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